

Appl. No. 09/669,032
Amdt. dated June 26, 2006
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2644

PATENT

REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed February 24, 2006. Claims 18-31 were pending in the present application. This Amendment amends claims 18, 23, 25, and 30, without adding or canceling any claims, leaving pending in the application claims 18-31. Reconsideration of the rejected claims is respectfully requested.

I. Rejection under 35 U.S.C. §102

Claims 18-19, 21-23, 25-26, and 28-30 are rejected under 35 U.S.C. §102(b) as being anticipated by *Kondo* (US 5,668,337). Applicants respectfully submit that *Kondo* does not disclose each element of these claims.

For example, Applicants' claim 18 as amended recites a melody sound reproducing unit comprising:

- an input unit which inputs melody data for a plurality of notes;
- a controller which shifts the plurality of notes of the melody data inputted by the input unit by half-steps when a frequency of the inputted melody data is not in a predetermined range, the controller shifting the notes by half steps until the melody data is entirely within the predetermined range;
- a memory which stores melody data inputted by the input unit when a frequency of the inputted melody data is in the predetermined range, and stores melody data shifted by the controller when the frequency of the inputted melody data is not in the predetermined range;
- a signal generator for generating an audio signal based on melody data stored in the memory; and
- a speaker for outputting an audio signal generated by the signal generator

(emphasis added). Such limitations are not disclosed by *Kondo*.

Kondo discloses an automatic performance device in which pre-set accompaniment patterns for parts such as rhythm, bass, and drum parts can be automatically played along with the performance of an individual (col. 1, lines 11-23). The notes of these accompanying parts can be converted to notes matching a chord input by the individual, and can be converted to match a particular style (col. 1, lines 23-43). *Kondo* discloses an automatic performance device which effectively reduces a memory capacity necessary to store information related to this "chord-based note conversion" (col. 1, lines 60-63). The *Kondo* device has a note limiting range that designates an upper and lower limit of a predetermined pitch range of the device (col. 9, lines 11-15), such that if the note data converted based on a chord input by the individual falls

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outside that range, the note data is modified by a full octave, but still corresponds to the chord input by the individual (e.g., shifting from "middle C" to "tenor C"), so that the tone falls within the pitch range (col. 16, lines 1-8).

Applicants' claim 18, on the other hand, recites shifting note data of a melody by half-steps (e.g., shifting from "middle C" to "middle C#") until the melody is within the predetermined frequency range. This allows the melody to remain as close as possible in frequency to the originally intended frequency, instead of jumping a full octave, which includes jumping several full steps at once. Further, jumping a full octave as in *Kondo* might result in neither an upper or lower octave falling within the predetermined range, with no other alternative. Such a situation might, however, find several solutions if able to shift only by half-steps as in Applicants' claim 18. As *Kondo* does not disclose or suggest such limitations, *Kondo* cannot anticipate Applicants' claim 18 or dependent claims 19, 21, and 22. Claims 23, 25, and 30 recite limitations which similarly are not disclosed by *Kondo*, such that *Kondo* cannot anticipate claims 23, 25, and 30 or dependent claims 26, 28, and 29.

Claims 18-19, 21, 23, 25-26, 28, and 30 are rejected under 35 U.S.C. §102(a) as being anticipated by *Hildebrand* (US 5,973,252). Applicants respectfully submit that *Hildebrand* does not disclose each element of these claims. For example, claim 18 as amended is presented above.

Hildebrand, on the other hand, discloses a device that automatically corrects the pitch of individual notes in real time for vocals or other soloists, so that none of the notes sound out of tune (col. 1, lines 16-58; see also col. 3, line 64-col. 4, line 4). *Hildebrand* discloses adjusting the pitch of any individual note to match the intended pitch of that note, without changing the pitch of any note that is on pitch (col. 3, line 43-col. 5, line 38). *Hildebrand* does not disclose or suggest shifting all of a plurality of notes of the melody data by half-steps until the melody data is entirely within the predetermined range as recited in Applicants' claim 18. As such, *Hildebrand* cannot anticipate Applicants' claim 18 or dependent claims 19 and 21. Claims 23, 25, and 30 recite limitations which similarly are not disclosed by *Hildebrand*, such that *Hildebrand* cannot anticipate claims 23, 25, and 30 or dependent claims 26, and 28.

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Applicants therefore respectfully request that the rejections with respect to claims 18-19, 21-23, 25-26, and 28-30 be withdrawn.

II. Rejection under 35 U.S.C. §103

Claims 20, 24, 27, and 31 are rejected under 35 U.S.C. §103(a) as being obvious over *Kondo*. Claims 20, 24, 27, and 31 depend from claims 18, 23, 25, and 30, respectively, which are not rendered obvious by *Kondo* as discussed above, as *Kondo* fails to teach or suggest shifting all of a plurality of notes of melody data inputted half-steps until the melody data is entirely within the predetermined range. As such, *Kondo* cannot render obvious claims 18, 23, 25, and 30 or dependent claims 20, 24, 27, and 31.

Claims 20, 24, 27, and 31 are rejected under 35 U.S.C. §103(a) as being obvious over *Hildebrand*. Claims 20, 24, 27, and 31 depend from claims 18, 23, 25, and 30, respectively, which are not rendered obvious by *Hildebrand* as discussed above, as *Hildebrand* fails to teach or suggest shifting all of a plurality of notes of melody data inputted half-steps until the melody data is entirely within the predetermined range. As such, *Hildebrand* cannot render obvious claims 18, 23, 25, and 30 or dependent claims 20, 24, 27, and 31.

Applicants therefore respectfully request that the rejection with respect to claims 20, 24, 27, and 31 be withdrawn.

III. Amendment to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter.

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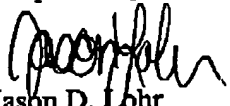
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CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,


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